



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,394	07/10/2002	Tser Yeng Lin	1051.001US1	5844

23441 7590 09/22/2005

LAW OFFICES OF MICHAEL DRYJA  
704 228TH AVENUE NE  
PMB 694  
SAMMAMISH, WA 98074

EXAMINER

RAMPURIA, SATISH

ART UNIT PAPER NUMBER

2191

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/064,394	Applicant(s) LIN, TSER YENG	
	Examiner Satish S. Rampuria	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2002.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/10/2002</u> | 6) <input type="checkbox"/> Other: _____  |

***DETAILED ACTION***

1. This action is in response to the application filed on 07/10/2002.
2. Claims 1-15 are pending.

***Information Disclosure Statement***

3. An initialed and dated copy of Applicant's IDS form 1449 filed on 07/10/2002 is attached to the instant Office action.

***Oath/Declaration***

4. An oath or declaration is required because the oath is missing. The oath or declaration must properly identify the application of which it is to form a part, preferably by application number and filing date in the body of the oath or declaration. See MPEP §§ 602.01 and 602.02.

***Drawings***

5. The drawings were received on 07/10/2002. The drawings are objected to because FIG. 1, elements 104, 110, FIG. 2, all elements, and FIG. 5 element 702 are not correctly drawn. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be

Art Unit: 2191

renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Claim Rejections - 35 USC § 112*

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Clarification and/or correction are required.

Claim 1, 5, 6, 8, 9 and 10 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, on line 7 of the claim, the phrase "such that" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 9, has the similar limitation to those in claim 1 with respect to "such that", recited on page 10, line 4 of the claim.

Art Unit: 2191

Regarding, claim 5, on line 4 of the claim, the limitation, “one or more” is unclear as to how many software objects are being executed within run-time environment with built-in functionality.

Claim 6, has the similar limitation to those in claim 5 with respect to “one or more”, recited on page 9, line 3 of the claim.

Claim 8, has the similar limitation to those in claim 5 with respect to “one or more”, recited on page 10, line 2 of the claim.

Claim 9, has the similar limitation to those in claim 5 with respect to “one or more”, recited on page 10, line 4 of the claim.

Claim 10, has the similar limitation to those in claim 5 with respect to “one or more”, recited on page 10, line 1 of the claim.

The rejection of the base claim is necessarily incorporated into the dependent claims.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-4 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 is non-statutory because the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment

Art Unit: 2191

or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Claim recites method of deriving a software object... compiling the software object..., representing functional descriptive material without a computer readable medium or computer implemented method, method per se are not tangibly embodied. Claims 2-4 are dependent on claim 1 and further support the method as described above, without a computer readable medium or computer implemented method, method per se are not tangibly embodied thus amounts to only abstract idea and are nonstatutory.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-13 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 2001/0018689 to Spence et al. (hereinafter, Spence).

**Per claim 1:**

Spence discloses:

- deriving a software object class from a persistent base software object class that includes persistence functionality relative to relational database management systems (RDBMS), the software object class including the persistence functionality (page 3, [0060])

“...persistence of an object that contains data into one or more different persistent store types with one or more different persistence physical structures... at run-time an application has late-binding... object will be persisted without needing to embed the application with early-binding of the object's physical persistence structure”); and,

- compiling the software object class to an executable software object having the persistence functionality built-in (page 1, [0020] “...persistence strategy... include... storage and retrieval actions... persistence strategy can be defined for a definition time and a runtime”), such that the executable software object is able to persist to the RDBMS using the persistence functionality built-in (page 3, [0061] “... Within an application, at run-time, it is possible to choose one of those names and request an instance-model object to be persisted...”).

**Per claim 2:**

The rejection of claim 1 is incorporated, and further, Spence discloses:

- further comprising executing the executable software object within a run-time environment having attribute and reflection properties (page 3, [0061] “... Within an application, at run-time, it is possible to choose one of those names and request an instance-model object to be persisted...”).

**Per claim 3:**

The rejection of claim 1 is incorporated, and further, Spence discloses:

- wherein deriving the software object class from the persistent base software object class comprises adding relevant persistence attributes to source code for the software object class (page 3, [0060] "...persistence of an object that contains data into one or more different persistent store types with one or more different persistence physical structures... at run-time an application has late-binding... object will be persisted without needing to embed the application with early-binding of the object's physical persistence structure").

**Per claim 4:**

The rejection of claim 1 is incorporated, and further, Spence discloses:

- wherein compiling the software object class to the executable software object comprises compiling the software object class to an executable domain software object (page 1, [0013] "instantiating an object that carries its carries its persistence strategy and its attributes with their respective persistence strategies... servicing said instantiated object").

*Claims 5-7* are the system claim corresponding to method claim 1, and rejected under the same rational set forth in connection with the rejection of claim 1, above, as noted above and Spence also discloses system, see FIG. 2 and associated text.



Art Unit: 2191

*Claim 8* is the system claim corresponding to method claim 4, and rejected under the same rational set forth in connection with the rejection of claim 4, above, as noted above and Spence also discloses system, see FIG. 2 and associated text.

*Claims 9-11* are the computer product claim corresponding to method claim 1, and rejected under the same rational set forth in connection with the rejection of claim 1, above.

**Per claim 12:**

The rejection of claim 9 is incorporated, and further, Spence discloses:

- wherein the medium is one or more of: a volatile medium, a non-volatile medium, a semiconductor memory, an optical medium, a hard disk drive, a floppy disk, a removable storage medium, a fixed storage medium, an optical medium, and a magnetic medium (page 2, [0046] and FIG. 1 and related discussion).

*Claims 13* is the computer product claim corresponding to method claim 1, and rejected under the same rational set forth in connection with the rejection of claim 1, above.

**Per claim 15:**

The rejection of claim 13 is incorporated, and further, Spence discloses:

- wherein the medium is one or more of: a volatile medium, a non-volatile medium, a semiconductor memory, an optical medium, a hard disk drive, a floppy disk, a removable

storage medium, a fixed storage medium, an optical medium, and a magnetic medium (page 2, [0046] and FIG. 1 and related discussion).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spence in view of US Patent No. 6,708,196 to Atkinson et al. (hereinafter, Atkinson).

**Per claims 14:**

Spence does not explicitly disclose wherein the persistence library comprises a dynamically linked library (DLL).

However, Atkinson discloses in an analogous computer system wherein the persistence library comprises a dynamically linked library (DLL) (col. 7, lines 18-24 "The object handler is implemented by object handler code preferably stored as a dynamic link library ("DLL") which is linked as needed into the code execution memory address space of a client program to help the client program communicate with the server program that implements the source object").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of having the DLL as taught by Atkinson into the method of dynamic object persistence as taught by Spence. The modification would be obvious because of one of ordinary skill in the art would be motivated to have DLL as an

Art Unit: 2191

library to provide an efficient support at runtime to a class object as suggested by Atkinson (col. 4, lines 22-45).

### *Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:30 am to 5:00 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Tuan Q. Dam** can be reached on **(571) 272-3695**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Satish S. Rampuria  
Patent Examiner/Software Engineer  
Art Unit 2191  
09/19/2005



**ANTHONY NGUYEN-BA  
PRIMARY EXAMINER**